UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,602	09/15/2003	Chang-Ning Huang	M61.12-0514	2369

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EXAMINER
SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 January 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>27 - 33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>27-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/11/08 has been entered.

Response to Arguments

2.   Applicant's arguments filed 01/18/08 have been fully considered but they are not persuasive.

Applicant argues that Wu does discuss that evaluation based on a particular word type or providing effectiveness indication for particular word types (Amendment, pages 5 – 7).

The examiner disagrees, Wu teaches that most common types of named entities and factoids whose segmentation may vary across different standards (page 12, paragraph 2.5). Varying segmentation for different types of names entities and factoids implies evaluating based on a particular word type, since name entities and factoids are two different word types.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 27 - 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu

(Customizable Segmentation of Morphologically Derived Words in Chinese; February

2003).

As per claim 27, Wu teaches a method for evaluating a word segmentation

language model, comprising:

building the word segmentation language model based on an annotated corpus;

applying the language model to a test corpus of unsegmented text different from the

annotated corpus to provide an output indicative of words in the test corpus, and a word

type indication for each word ("most common types of named entities and factoids

whose segmentation may vary across different standards"), the word type indication

being one of a plurality of word type indications ("a language model is used to select the

best sequence of characters"; page 2, paragraph 2, lines 9 – 11; page 9, paragraph 4,

lines 6, and 7; page 12, sections 2.5);

comparing the word type indication for each word in the output of the language

model with predefined word type indications of words of the test corpus; and evaluating

the language model based on the comparison of the word type indication for each word

in the output and the predefined word type indication to provide an indication of

effectiveness of the language model as function of the word type indications identified

by the language ("segmented consistently as long as their internal structures are

available"; page 3, lines 31 – 36; page 11, lines 23 – 25; page 12, sections 2.5; page

14, lines 7 – 10).

As per claim 28, Wu further discloses identifying words in the output that match

words in the predefined type indication ("select the correct character sequence"; page

11, lines 23 – 25).

As per claims 29, and 30, Wu further discloses comparing person names,

locations, organization names, overlapping ambiguous strings and covering ambiguous

strings in the output and the predefined word type indications (page 12, paragraphs 2.5

– 2.5.2).

As per claim 31, Wu teaches a method of evaluating word segmentation models,

comprising:

using a first word segmentation model to segment a corpus of text into words and

tags to the words indicative of one of the plurality of word types ("most common types of

named entities and factoids whose segmentation may vary across different standards"),

the words and tags forming a first output ("first segmented the text using our default

setting"; page 19, paragraph 2, lines 1, and 2; page 12, sections 2.5);

using a second word segmentation model to segment a corpus of text into words

and tags to the words indicative of one of the plurality of word types ("most common

types of named entities and factoids whose segmentation may vary across different

standards"), the words and tags forming a second output ("adjusted segmentation were

evaluated"; page 19, paragraph 2, lines 1 - 4; page 12, sections 2.5);

comparing the first output to a predefined indication of words and tags of the

words indicative of one of the plurality of words types from the corpus of text to provide

a first set of values for each of the plurality of word types indicative of how the first word

segmentation model recognizes each of the plurality of word types; comparing the

second output to a predefined indication of words and tags of the words indicative of

one of the plurality of words types from the corpus of text to provide a second set of

values for each of the plurality of word types indicative of how the second word

segmentation model recognizes each of the plurality of word types ("scores when the

default setting was used...after a quick adjustment...the scores became"; page 19,

paragraph 3);

comparing the first set of values and the second set of values to determine

effectiveness of the first word segmentation model and the second word segmentation

with respect to each of the plurality of word types ("the scores improved dramatically

across the board in both the CHTB and BU data after the parameter values were

adjusted to the relevant standards"; page 20, paragraph 3).

As per claim 32, Wu further discloses that the first set of values is based on

matches between the first output and the predefined indication and wherein the second

set of values is based on matches between the second output and the predefined

indication (page 19; paragraphs 1, and 2).

As per claim 33, Wu further discloses that the plurality of word types includes

person names, location names, organization names, overlapping ambiguous strings,

and covering ambiguous strings (page 12, paragraphs 2.5 – 2.5.2).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Leonard Saint-Cyr whose telephone number is (571)

272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone

number for the organization where this application or proceeding is assigned is (571)-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
01/28/08

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER